

IN THE CLAIMS:

Please amend the claims as follows.

1. (Canceled).

2. (Canceled).

3. (Currently Amended) A method to implement transmission diversity in a radio system comprising at least one receiving unit and at least one transmitting unit, in which radio system the at least one receiving unit and the at least one transmitting unit set up a data transmission connection over a radio path, the method comprising:

transmitting a signal to the at least one receiving unit using a preferred transmission diversity option;

monitoring the signal by the at least one receiving unit for quality;

sending feedback data comprising power control messages from the at least one receiving unit to the at least one transmitting unit based on the monitoring; and

selecting a transmission diversity option based on the feedback data

wherein the at least one transmitting unit filters the feedback data required for the selection of the transmission diversity option from the power control message, and
wherein A method in accordance with patent claim 2, characterized in that that filtering is carried out by counting the number of certain type of power control messages

from a sliding window comprising of the a preferred number of successive power control messages.

4. (Currently Amended) A method to implement transmission diversity in a radio system comprising at least one receiving unit and at least one transmitting unit, in which radio system the at least one receiving unit and the at least one transmitting unit set up a data transmission connection over a radio path, the method comprising:

transmitting a signal to the at least one receiving unit using a preferred transmission diversity option;

monitoring the signal by the at least one receiving unit for quality;

sending feedback data comprising power control messages from the at least one receiving unit to the at least one transmitting unit based on the monitoring; and

selecting a transmission diversity option based on the feedback data;

wherein the transmitting unit filters the feedback data required for the selection of the transmission diversity option from the power control message, and wherein A method in accordance with patent claim 2, characterized in that filtering is carried out by means of a table that includes all the possible variations of the power control message strings contained in the a sliding window.

5. (Currently Amended) A method to implement transmission diversity in a radio system comprising at least one receiving unit and at least one transmitting unit, in which

radio system the at least one receiving unit and the at least one transmitting unit set up a data transmission connection over a radio path, the method comprising:

transmitting a signal to the at least one receiving unit using a preferred transmission diversity option;

monitoring the signal by the at least one receiving unit for quality;

sending feedback data comprising power control messages from the at least one receiving unit to the at least one transmitting unit based on the monitoring; and

selecting a transmission diversity option based on the feedback data wherein A method in accordance with patent claim 1, characterized in that the at least one transmitting unit continuously counts the number of certain type of incoming successive power control messages, and when the said number reaches a certain predefined value, a decision is made on the diversity option to be used and whenever a different type of power control message is received, the count is reset.

6. (Canceled).

7. (Canceled).

8. (Currently Amended) An arrangement for implementing transmission diversity in a radio system comprising at least one receiving unit and at least one transmitting unit, in which radio system the at least one receiving unit and the at least one

transmitting unit are configured to set up a data transmission connection over a radio path, the arrangement incorporating:

measuring elements on the at least one receiving unit configured to measure properties of a signal received thereby;

feedback elements configured to transmit transmission diversity data comprising power control messages to the at least one transmitting unit based on said measurement;

in the at least one transmitting unit, control elements functionally connected to switching elements and configured to control the switching elements in response to the power control messages received; and

the switching elements configured to select a transmission diversity option, wherein the control elements contain filtering elements for filtering the power control messages, wherein An arrangement in accordance with patent claim 7, characterized in that the filter uses a sliding window in such a way that only a certain type of power control message strings are responded to.

9. (Currently Amended) An arrangement for implementing transmission diversity in a radio system comprising at least one receiving unit and at least one transmitting unit, in which radio system the at least one receiving unit and the at least one transmitting unit are configured to set up a data transmission connection over a radio path, the arrangement incorporating:

measuring elements on the at least one receiving unit configured to measure properties of a signal received thereby;

feedback elements configured to transmit transmission diversity data comprising power control messages to the at least one transmitting unit based on said measurement;

in the at least one transmitting unit, control elements functionally connected to switching elements and configured to control the switching elements in response to the power control messages received; and

the switching elements configured to select a transmission diversity option,

wherein the control elements contain filtering elements for filtering the power control messages, wherein An arrangement in accordance with patent claim 7, characterized in that the filter uses the a sliding window in such a way that only a certain type of power control message string is responded to.

10. (Currently Amended) An arrangement for implementing transmission diversity in a radio system comprising at least one receiving unit and at least one transmitting unit, in which radio system the at least one receiving unit and the at least one transmitting unit are configured to set up a data transmission connection over a radio path, the arrangement incorporating:

measuring elements on the at least one receiving unit configured to measure properties of a signal received thereby;

feedback elements configured to transmit transmission diversity data comprising power control messages to the at least one transmitting unit based on said measurement;

in the at least one transmitting unit, control elements functionally connected to switching elements and configured to control the switching elements in response to the power control messages received; and

the switching elements configured to select a transmission diversity option,
wherein An arrangement in accordance with patent claim 6, characterized
in that the control elements contain a counter that counts the number of certain type of
successive power control messages.

11. (New) An arrangement according to claim 8, wherein the radio system comprises a mobile communications system.

12. (New) An arrangement according to claim 9, wherein the radio system comprises a mobile communications system.

13. (New) An arrangement according to claim 10, wherein the radio system comprises a mobile communications system.

14. (New) A transmitting unit in a radio system comprising at least one receiving unit and at least one transmitting unit configured to set up a data transmission connection

over a radio path, the transmitting unit configured to select transmission diversity option based on incoming power control messages, wherein the transmitting unit is configured to filter required data for the selection by means of a sliding window.

15. (New) A transmitting unit in a radio system comprising at least one receiving unit and at least one transmitting unit configured to set up a data transmission connection over a radio path, the transmitting unit configured to continuously count a number of certain type of incoming successive power control messages and when the number reaches a certain predefined value, to make a decision on the diversity option to be used and whenever a different type of power control message is received, to reset the count.